

Operating Instructions
Plasma Television

Model No. **TH-65PZ700A**

WARRANTY - Australia only

1. The product is warranted for 12 months from the date of purchase. Subject to the conditions of this warranty Panasonic or it's Authorised Service Centre will perform necessary service on the product without charge for parts or labour if, in the opinion of Panasonic, the product is found to be faulty within the warranty period.
 2. This warranty only applies to Panasonic products purchased in Australia and sold by Panasonic Australia or its Authorised Distributors or Dealers and only where the products are used and serviced within Australia or it's territories. Warranty cover only applies to service carried out by a Panasonic Authorised Service Centre and only if valid proof of purchase is presented when warranty service is requested.
 3. This warranty only applies if the product has been installed and used in accordance with the manufacturer's recommendations (as noted in the operating instructions) under normal use and reasonable care (in the opinion of Panasonic). The warranty covers normal domestic use only and does not cover damage, malfunction or failure resulting from use of incorrect voltages, incorrect installation, accident, misuse, neglect, build-up of dirt or dust, abuse, maladjustment of customer controls, mains supply problems, thunderstorm activity, infestation by insects or vermin, tampering or repair by unauthorised persons (including unauthorised alterations), exposure to abnormally corrosive conditions or any foreign object or matter having entered the product.
 4. This warranty does not cover the following items unless the fault or defect existed at the time of purchase:

(a) Video or Audio Tapes	(d) Cabinet Parts	(g) Microwave Oven cook plates.
(b) Video or Audio Heads and Stylis resulting from wear and tear in normal use	(e) User replaceable Batteries	(h) Kneader mounting shaft unit (bread bakery)
(c) Shaver Heads or Cutters	(f) Thermal Paper, Toner/Ink Cartridges, Drums, Developer, Film (Ink/Ribbon), Film Cartridge, Printer Heads	
 5. If warranty service is required you should:
 - Telephone Panasonic's Customer Care Centre on 132600 or visit our website and use the Service Centre Locator for the name/address of the nearest Authorised Service Centre.
 - Send or bring the product to a Panasonic Authorised Service Centre together with your proof of purchase receipt as a proof of purchase date. Please note that freight and insurance to and / or from your nearest Authorised Service Centre must be arranged by you.
 - Note that home or pick-up/delivery service is available for the following products in the major metropolitan areas of Australia or the normal operating areas of the nearest Authorised Service Centres:

(a) Picture tube (CRT) based Television Receivers (screen sizes greater than 66cm); Rear Projection TV's; Plasma/LCD televisions / displays (screen size greater than 103 cm)	(b) Convection/Combination Microwave Ovens
	(c) Whiteboard (except portable type)
 6. The warranties hereby conferred do not extend to, and exclude, any costs associated with the installation, de-installation or re-installation of a product, including costs related to the mounting, de-mounting or remounting of any screen, (and any other ancillary activities), delivery, handling, freighting, transportation or insurance of the product or any part thereof or replacement of and do not extend to, and exclude, any damage or loss occurring by reason of, during, associated with, or related to such installation, de-installation, re-installation or transit.
- Panasonic Authorised Service Centres are located in major metropolitan areas and most regional centres of Australia, however, coverage will vary dependant on product. For advice on exact Authorised Service Centre locations for your product, please telephone our Customer Care Centre on 132600 or visit our website and use the Service Centre Locator.
- Unless otherwise specified to the consumer the benefits conferred by this express warranty are additional to all other conditions, warranties, guarantees, rights and remedies expressed or implied by the *Trade Practices Act 1974* and similar consumer protection provisions contained in legislation of the States and Territories and all other obligations and liabilities on the part of the manufacturer or supplier and nothing contained herein shall restrict or modify such rights, remedies, obligations or liabilities.
- November 2005

THIS WARRANTY CARD AND THE PURCHASE DOCKET (OR SIMILAR PROOF OF PURCHASE) SHOULD BE RETAINED BY THE CUSTOMER AT ALL TIMES

If you require assistance regarding warranty conditions or any other enquiries, please visit the Panasonic Australia website

www.panasonic.com.au or by phone on 132 600

If phoning in, please ensure you have your operating instructions available.

Panasonic Australia Pty. Limited

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VIERA



Customer's Record

The model number and serial number of this product may be found on its rear panel. You should note this serial number in the space provided below and retain this book, plus your purchase receipt, as a permanent record of your purchase to aid in identification in the event of theft or loss, and for Warranty Service purposes.

Model Number

Serial Number

Matsushita Electric Industrial Co., Ltd.

Web Site : <http://panasonic.net/>

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MBS0807S0

English

Please read these instructions before operating your set and retain them for future reference.
The images shown in this manual are for illustrative purposes only.

DVB®

AVCHD™

DOLBY DIGITAL

VIERA Link

SD HD

SRS TruSurround XT

HDMI HIGH-DEFINITION MULTIMEDIA INTERFACE

TQBC2206

Experience an amazing level of multi-media excitement

- Full HD Plasma Panel
 - Receive digital terrestrial services using an integrated (Digital Video Broadcasting) tuner
 - Sharp pictures with HDMI terminal
 - Create home theatre and DVD recorder link-ups with "VIERA Link" without complicated settings!

Enjoy rich multi-media

SD memory card

Camcorder

Personal computer

Set top box

DVD player

DVD Recorder

VCR

Amplifier with Speaker system

Trade Mark of the DVB Digital Video Broadcasting Project (1991 to 1996)

TH-65PZ700A Declaration of Conformity No 4596, 28 February 2007

Be Sure to Read

Quick Start Guide

Enjoy your TV!

Basic Features

Advanced Features

FAQs, etc.

- Technical Information 36
- FAQs 40
- Licence 42
- Specifications 43
- WARRANTY 44

Safety Precautions

Warning

Handling the mains plug and lead

- Insert the mains plug fully into the socket outlet. (If the mains plug is loose, it could generate heat and cause fire.)
- Ensure that the mains plug is easily accessible.
- Ensure the grounding pin on the mains plug is securely connected to prevent electrical shock.
- Do not touch the mains plug with a wet hand. (This may cause electrical shock.)
- Do not use any mains lead other than that provided with this TV. (This may cause fire or electrical shock.)
- Do not damage the mains lead. (A damaged lead may cause fire or electrical shock.)
 - Do not move the TV with the lead plugged in the socket outlet.
 - Do not place a heavy object on the lead or place the lead near a high-temperature object.
 - Do not twist the lead, bend it excessively, or stretch it.
 - Do not pull on the lead. Hold onto the mains plug body when disconnecting lead.
 - Do not use a damaged mains plug or socket outlet.

If you find any abnormality, remove the mains plug immediately!

AC 220-240 V
50 / 60 Hz



Do not remove covers NEVER modify the TV yourself

(High-voltage components may cause serious electrical shock.)

- Have the TV checked, adjusted, or repaired at your local Panasonic dealer.

Keep liquids away from the TV

- To prevent damage which may result in fire or shock hazard, do not expose this appliance to dripping or splashing.
- Do not place containers with water (flower vase, cups, cosmetics, etc.) above the TV. (including on shelves above, etc.)

Do not expose to direct sunlight and other sources of heat

- Avoid exposing the TV to direct sunlight and other sources of heat. To prevent fire never place any type of candle or naked flame on top or near the TV.

Do not place foreign objects inside the TV

- Do not let metal or flammable objects drop into the TV through the air vents (fire or electrical shock may result).

Do not place the TV on sloped or unstable surfaces

- The TV may fall off or tip over.

Use only the dedicated stands / mounting equipment

- Using an unauthorized stand or other fixtures may make the TV shaky, risking injury. Be sure to ask your local Panasonic dealer to perform setup.
- Use optional stands / mounts (p. 6).

Do not allow children to handle SD card

- As with a small object, SD card can be swallowed by young children. Please remove SD card immediately after use.

Caution

When cleaning the TV, remove the mains plug

(Cleaning an energized TV may cause electrical shock.)

When TV will not be used for a long time, remove the mains plug

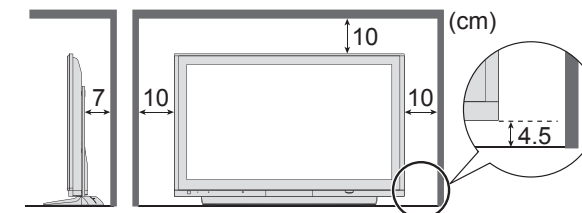
- This TV will still consume some power even in the Off mode, as long as the mains plug is still connected to a live socket outlet.

Transport only in upright position

- Transporting the TV with its display panel facing upright or downward may cause damage to the internal circuitry.

Allow sufficient space around the TV for radiated heat

Minimum distance



Do not block the rear air vents

- Blocked ventilation by curtains, etc. may cause overheating, fire or electrical shock.



Notes

Do not display a still picture for a long time

This causes the image to remain on the plasma screen ("image retention"). This is not considered a malfunction and is not covered by the warranty.

Typical still images

- Channel number and other logos
- Image displayed in 4:3 mode
- Video game
- Computer image



To prevent image retention, contrast is lowered automatically after a few minutes if no signals are sent or no operations are performed. (p. 40)

Auto power standby function

- If no signal is received and no operation is performed in Analogue TV mode for 30 minutes, the TV will automatically go to standby mode.

Keep the TV away from these equipment

- Electronic equipment
In particular, do not place video equipment near the TV (electromagnetic interference may distort images / sound).
- Equipment with an infrared sensor
This TV also emits infrared rays (this may affect operation of other equipment).

Maintenance

First, remove the mains plug from the socket outlet.

Display panel

Regular care: Gently wipe the surface clean of dirt by using a soft cloth.

Major contamination: Wipe the surface clean using a soft cloth dampened with clean water or diluted neutral detergent by 100 times of water. Then, using a soft dry cloth, evenly wipe the surface clean until it is dry.

Caution

- The surface of the display panel has been specially treated and may be easily damaged. Do not tap or scratch the surface with your fingernail or other hard object.
- Use care not to subject the surface to bug repellent, solvent, thinner, or other volatile substances (this may degrade surface quality).

Cabinet

Regular care: Wipe the surface clean using a soft dry cloth.

Major contamination: Dampen a soft cloth with clean water or water containing a small amount of neutral detergent. Then, wring the cloth and wipe the surface clean with it. Finally, wipe the surface clean with a dry cloth.

Caution

- Use care not to subject the TV's surfaces to detergent. (A liquid inside the TV could lead to product failure.)
- Use care not to subject surfaces to bug repellent, solvent, thinner, or other volatile substances (this may deteriorate the surface by peeling the paint).
- Do not allow the cabinet to make contact with a rubber or PVC substance for a long time.

Mains plug

Wipe the mains plug with a dry cloth at regular intervals. (Moisture and dust may lead to fire or electrical shock.)

Accessories / Options

Standard accessories

Check that you have the accessories and items shown ☒

☐ Remote Control Transmitter
● N2QAYB000122

☐ Batteries for the Remote Control Transmitter (2)
● R6 (AA)

☐ Clamper (2)

☐ Mains Lead

☐ Operating Instructions

☐ Guarantee

Installing remote's batteries

1

Pull open

2

Close

Note the correct polarity (+ or -)

Caution

- Incorrect installation may cause battery leakage and corrosion, resulting in damage to the remote control.
- Do not mix old and new batteries.
- Do not mix different battery types (such as alkaline and manganese batteries).
- Do not use rechargeable (Ni-Cd) batteries.
- Do not burn or breakup batteries.

Using the clamper

Rear of the TV

Snap open

Snap shut

Remove from the TV

Push both side hooks and pull out

- Do not bundle the RF cable and mains lead together (could cause distorted image).
- Fix cables with clampers as necessary.
- When using the optional accessory, follow the option's assembly manual to fix cables.

Optional accessories

Pedestal
● TY-ST65R2-WG

Wall-hanging bracket (vertical)
● TY-WK65PV7

Caution

- In order to maintain the unit's performance and safety, be absolutely sure to ask your dealer or a licenced contractor to secure the wall-hanging brackets.
- Carefully read the instructions accompanying the plasma TV stand or pedestal, and be absolutely sure to take steps to prevent the TV from tipping over.
- Handle the TV carefully during installation since subjecting it to impact or other forces may cause product damage.

Identifying Controls

SD CARD slot (p. 31)

Function select
● Volume / Contrast / Brightness / Colour / Sharpness / Tint (NTSC mode) / Bass / Treble / Balance / Auto Tuning (p. 24)

Lift door to open

Power LED
● Standby: red
On: green

Changes the input mode

Headphones jack (p. 34)

AV4 terminals (p. 34)

HDMI3 terminal (p. 34)

Increases or decreases the programme position by one. When a function is already displayed, press to increase or decrease the selected function. When in Standby mode, switches TV On.

Remote control signal receiver

C.A.T.S. (Contrast Automatic Tracking System) sensor (senses brightness to adjust picture quality in "Auto" Mode in Picture Menu) (p. 20)

Mains power On / Off switch

Standby On / Off switch (Switches TV On or Off standby)

Changes aspect ratio (p. 11)

Access VIERA Link Menu (p. 33)

TV Guide (p. 12)

OK button to confirm selections and choices Press after selecting programme positions to quickly change programme.

Main Menu Press to access VIERA Link, Picture, Sound and Setup menus (p. 18)

Teletext (p. 16)

Subtitles Showing subtitles (p. 10)

Programme / service change buttons (0-9) and Teletext page buttons. (p. 10 and p. 16) When in Standby mode, switches TV On.

Programme Information (p. 11)

Selects services in sequence

VCR / DVD operations (p. 15)

Multi window (p. 11)

Changes the sound track, if programme has multiple audio tracks (DVB) Stereo / Bilingual Sound Selection (p. 37) (Analogue)

Changes the input mode TV - switches DVB (digital broadcasting) / Analogue mode (p. 10) AV - changes AV input mode (p. 14)

Viewing SD Card (p. 30)

Option menu Sets the preferred settings of the current programme easily (p. 10)

EXIT (Returns to TV screen)

Cursor buttons to make selections and adjustments

Returns to the previous menu

Coloured buttons used for the selection, navigation and operation of various functions

Still picture (p. 10) Teletext Hold (p. 17)

Teletext Index (p. 17)

Sound mute On / Off

Volume

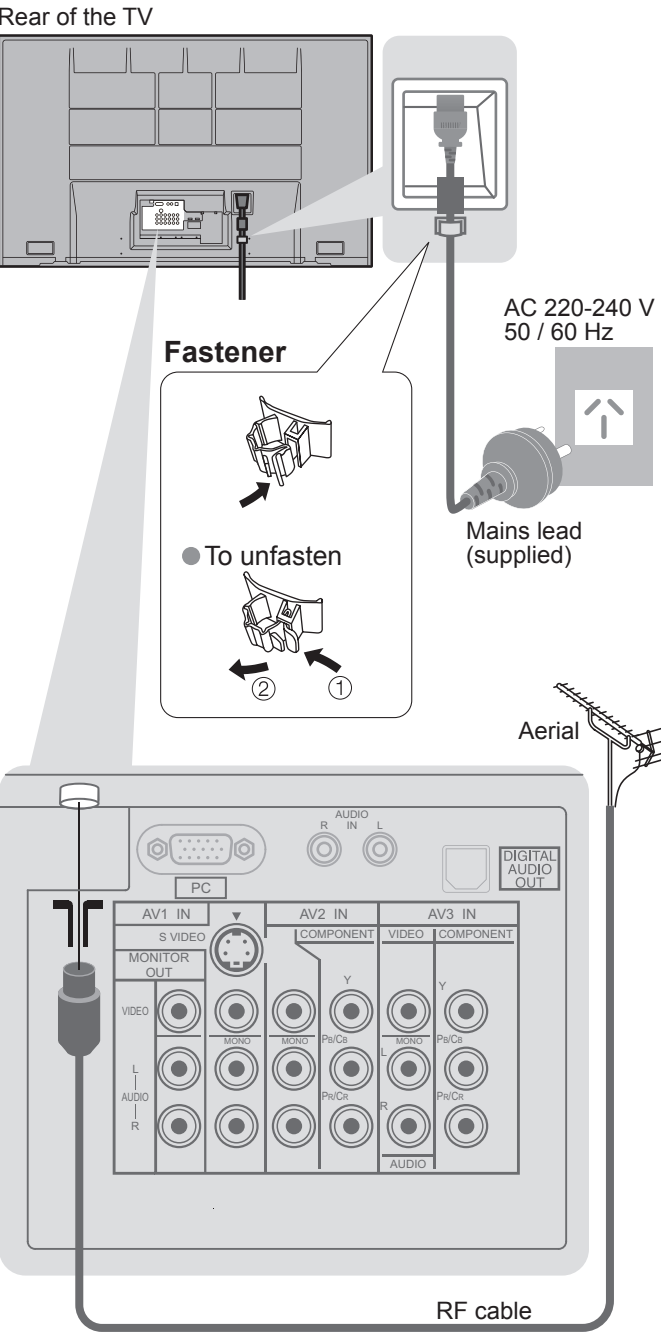
Surround (p. 20)

Basic Connection

External equipment and cables shown are not supplied with this TV.
Please ensure that the unit is disconnected from the mains socket before attaching or disconnecting any leads.
When disconnecting the mains lead, be absolutely sure to disconnect the mains plug at the socket outlet first.

Example 1 Connecting aerial

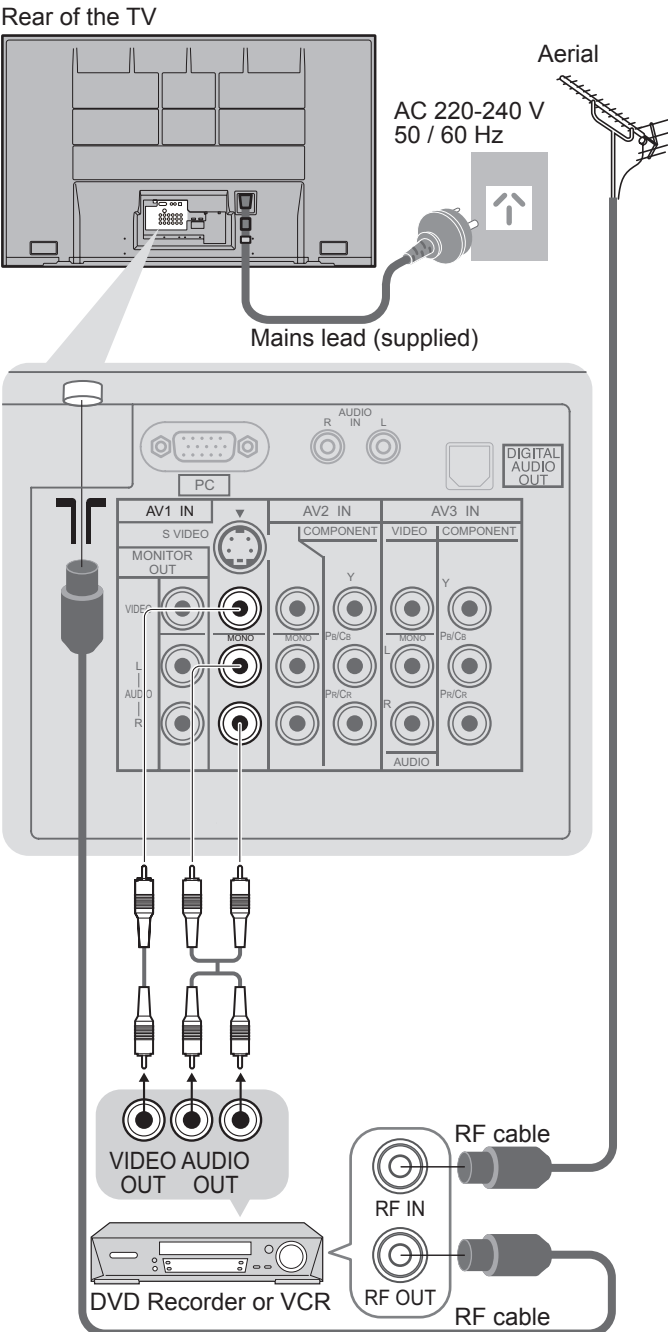
TV only



Example 2 Connecting DVD Recorder / VCR

TV, DVD Recorder or VCR

● If your recorder is not available for DVB → p. 41



- Note**
- Do not put the RF cable close to the mains lead to avoid noise.
 - Do not place the RF cable under the TV.
 - To obtain optimum quality picture and sound, an Aerial, the correct cable (75 Ω coaxial) and the correct terminating plug are required.
 - If a communal Aerial system is used, you may require the correct connection cable and plug between the wall Aerial socket and the TV.
 - Your local Television Service Centre or dealer may be able to assist you in obtaining the correct Aerial system for your particular area and the accessories required.
 - Any matters regarding Aerial installation, upgrading of existing systems or accessories required, and the costs incurred, are the responsibility of you, the Customer.

Auto Tuning

Search and store TV channels automatically.
These steps are not necessary if the setup has been completed by your local dealer.

1

Plug the TV into mains socket and switch On
(Takes a few seconds to be displayed)

● You can now use the remote control to turn On the TV or turn the TV to standby mode. (Power LED: On)

2

Select your state

select

3

Start Auto Tuning

● Auto Tuning will start to search for TV services and store them in the numbered order as specified by the broadcasters.

Auto Tuning is now complete and your TV is ready for viewing.

● To edit channels
→ Editing and Setting Channels (p. 24)
● If tuning has failed
→ "Auto Tuning" (p. 24).
● If you turned the TV Off during Standby mode last time, the TV will be in Standby mode when you turn the TV On with Mains power On / Off switch.

Using the On Screen Displays

Many features available on this TV can be accessed via the On Screen Display menu.

■ How to use remote control

- MENU: Open the main menu
- Move the cursor / select the menu
- Move the cursor / adjust levels / select from a range of options
- OK: Access the menu / store settings after adjustments have been made or options have been set
- RETURN: Return to the previous menu
- EXIT: Exit the menu system and return to the normal viewing screen

■ ON SCREEN HELP Instructions box
(example: Sound Menu)

On-screen operation guide will help you.

Watching TV

1 Turn power on
 POWER ● Mains power On / Off switch should be On.

2 Select DVB (Digital Video Broadcasting) or Analogue
 TV
 Information banner
 ● You can also select the mode using the TV button on the front panel of the TV.

3 Select a service
 up or down
 CH or 0
 ● To select the two or three-digit programme number, e.g. 39
 → 3 → 9 (in a short time)

■ Select a service using Information banner
 INFO → select service → watch

■ Select a service using TV Guide
 → "Using TV Guide" (p. 12)

Note
 ● When the TV is switched to standby, there will be a clicking sound after a short delay. This is normal.

Other useful functions (Operate after 3)

Hold	Freeze / unfreeze picture	HOLD
Display subtitles	Display / hide subtitles (if available)	STTL
	● This is the same as turning the teletext on and selecting P801. ● Channel changing is not possible when this function is active.	
Display the current programme status	Check or change the current programme status instantly	OPTION
	Volume Correction → Adjusts volume of individual channel or input mode	
	Note ● Also possible to change the settings in Menu list (p. 20).	

Other useful functions (Operate after 3)

Display information banner

Display programme information

INFO

Programme Service Current time Current favourite list
 1 TEN Digital 10:30 am All DVB Services
 Coronation Street 9:00 am - 11:00 am Select FAV List
 DVB: Programme Start / Finish time Mute Rating: PG Bad Signal STTL TEXT I/II 45
 Analogue: Programme Status Sound mute Rating information Subtitle Off timer Features available
 Stereo sound Weak TV signal Multiple audio

● Information of another channel →
 ● Information on next programme (DVB) →
 ● To watch the programme listed in the banner → OK
 ● Information banner operation → INFO

1st press Display banner → 2nd press Banner + programme synopsis (DVB) → 3rd press Exit

● To change the Fav List (If you have defined a Fav List) → B
 ● To download new software to TV → R
 ● "System Update Search Now" (p. 23)

● To set display timeout → "Banner Display Timeout" (p. 21)
 ● To hide → EXIT
 ● Appears also when changing service.

Change aspect ratio

Change the aspect ratio (p. 36)

Enjoy viewing the picture at its optimum size and aspect.

- To change the mode
 Display Aspect Selection list → During the list is displayed, select the mode → Store OK
- To change the mode using the ASPECT button only
 → ASPECT (Press repeatedly until you reach the desired mode)

Note

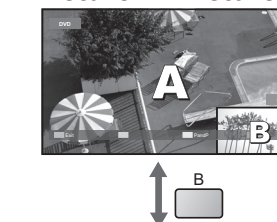
- In DVB mode, aspect ratio is fixed at 16:9.

Watch TV, DVD, etc. in multi window

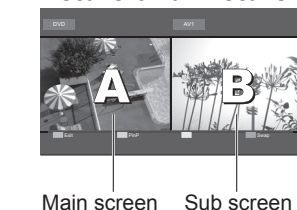
View in multi window (p. 38)

Enjoy viewing two images at once, such as a TV programme and a DVD.

Picture-in-Picture mode (PiP)



Picture-and-Picture mode (PandP)



- Remote control operations apply to the main screen.

Operations in multi window

- To exit multi window (return to the single-screen view with main screen) → MULTI PIP
- To change the layout, images, first show the colour bar → INFO
- To change the layout → G Y
- To swap → B
- To exit multi window → R
- To change the input mode or position of sub screen
 Swap sub screen for main screen → Change the input mode or position by the remote control (p. 10 or p. 14) → Swap again

Using TV Guide

TV Guide—Electronic Programme Guide (EPG) provides an on-screen listing of programmes currently broadcast and future broadcasts over the next seven days (depending on the broadcaster). Analogue broadcasts will be listed after DVB broadcasts. “D” means DVB channel and “A” means Analogue channel.

GUIDE

EXIT

OK

↑

↓

←

→

R G Y B

TV

Panasonic

GUIDE

EXIT

OK

↑

↓

←

→

R G Y B

TV

Panasonic

View TV Guide

TV Guide

Fri 14th May

Wed 12/05/04 10:15 am

Programme

Current date and time

TV Guide

Fri 14th May

Wed 12/05/04 10:15 am

Prog. type

All Types

Favourites

All Services

Service

D 1 TEN Digital

D 2 ABC TV Sydney

D 3 SBS DIGITAL

D 4 FTV guide

D 7 7 Digital

9:30 am - 10:00 am

Eastender

10:00 am - 10:30 am

DIY SOS

10:30 am - 11:00 am

The Bill

11:00 am - 11:30 am

Red Cap

11:30 am - 1:00 pm

Live junction

1:00 pm - 3:00 pm

POP 100

3:00 pm - 3:10 pm

Rugby

Select programme

EXIT

Select service

Info

RETURN

Page up

Page down

-24 Hr

+24 Hr

Prog.type

Favourites

(Displays by time)

To previous day (DVB mode)

R

To next day (DVB mode)

G

To view a programme list of the selected type (DVB mode)

Y

To return to TV

EXIT

To view a programme list of the selected favourites list

B

Favourites

All Services

All DVB Services

All Analogue Services

Fav List1

Fav List2

Fav List3

Fav List4

Only analogue TV services are listed

To list favourite services (p. 23)

Prog. type

All Types

Movies

News

Entertainment

Sport

Children's

Music

Arts/Culture

Current Affairs

Education/Information

Infotainment

Special

Comedy

Drama

Documentary

(Type list)

1 select type

2 view

Favourites

All Services

All DVB Services

All Analogue Services

Fav List1

Fav List2

Fav List3

Fav List4

1 select favourite list

2 view

Other useful functions (Operate after viewing TV Guide)

View details of the programme (DVB mode)

Select the programme

select

View details

Details

To return to the start page

INFO

Watch the programme

Select the programme now on the air

1 select

2 watch

(TV screen)

Note

- When this TV is turned on for the first time, or the TV is switched off for more than a week, it may take some time before the TV Guide is completely shown.

Viewing

Using TV Guide

12

13

Watching Videos and DVDs

Connect the external equipment (VCRs, DVD equipment, etc.) and you can watch the input.
To connect the equipment (p. 8)
The Remote Control is capable of operating some functions of selected Panasonic external equipment.

1

Display the Input select menu

2

Select the input mode connected to the equipment

3

View

INPUT

TV

AV

OK

1

2

3

4

5

6

7

8

9

0

PROGRAMME

V

^

◀

▶

POWER

REC

VCR

DVD

AV

Input Selection

AV1

AV2

AV3

AV4

PC

HDMI1

HDMI2

HDMI3

TV

2 watch

OK

1 select

AV2

● You can also select the input using the AV button on the remote control or the front panel of the TV.
Press the button repeatedly until the desired input is selected.

● You can label or skip each input modes ➡ “Input Labels” (p. 27)

■ To return to TV

➡ TV

Note

● If the external equipment has an aspect adjustment function, set to “16:9”.
● For details, see the manual of the equipment or ask your local dealer.

Panasonic equipment connected to the TV can be directly operated with the remote control.

	VCR / DVD switch* Select VCR to operate Panasonic VCR or DVD equipment Select DVD to operate Panasonic DVD equipment or Player home theatre
	Standby Set to Standby mode / Turn on
	Play Playback videocassette / DVD
	Stop Stop the operations
	Rewind / Skip / Search VCR: Rewind, view the picture rapidly in reverse DVD: Skip to the previous track or title Press and hold to search backward
	Fast-forward / Skip / Search VCR: Fast-forward, view the picture rapidly forward DVD: Skip to the next track or title Press and hold to search forward
	Pause Pause / Restart DVD: Press and hold to play at slow speed
	Programme Up / Down Select programme
	Record Start recording

***Setting your remote control to operate Panasonic VCR, DVD, etc.**

- ① Set the VCR / DVD switch to the appropriate position ➡
- ② Press and hold during the following operations
- Enter the appropriate code for the equipment to be controlled, see table below
- 1

2

3

4

5

6

7

8

9

0

➡ Press

“VCR” position

Equipment	Code
VCR	10 (default)
DVD	11

“DVD” position

Equipment	Code
DVD	70 (default)
Player home theatre	71

- Note
- Confirm correct operation after the code changed.
- The codes will be reset to default values if batteries are replaced.
- “DVD” means DVD player, DVD recorders and Recorder home theatre.
- Some operations may not be possible on some equipment models.

Viewing Teletext

You can enjoy teletext broadcasting, including news, weather forecasts and subtitles, if this service is provided by the broadcasters.

What is FASTEXT mode?

In FASTEXT mode, four differently coloured subjects are situated at the bottom of the screen. To access more information about one of these subjects, press the appropriately coloured button. This facility enables fast access to information on the subjects shown.

What is TOP mode? (in case of TOP text broadcasting)

TOP is a particular improvement of the standard teletext service that results in an easier search and effective guide.

- Fast overview of the teletext information available
- Easy to use step-by-step selection of the topical subject
- Page status information at the bottom of the screen

Available page up / down → R G


To select among subject blocks → B

To select next subject within the subject block
(After the last subject, it moves to the next subject block.) → Y

What is List mode?

In List mode, four differently coloured page numbers are situated at the bottom of the screen. Each of these numbers can be altered and stored in the TV's memory. ("Store frequently viewed pages", p. 17)

■ To change mode → "Teletext" in Setup Menu (p. 21)



1 Switch to Teletext

TEXT ● Displays Index (content varies depending on the broadcasters)

Sub page number
P100 17:51 28 Feb
TELETEXT INFORMATION
Colour bar

2 Select the page

1 2 3
4 5 6
7 8 9
0

or up down

or R G Y B
(Corresponds to the colour bar)

■ To adjust contrast → MENU (Press twice) → As the blue bar is displayed

■ To return to TV → TEXT

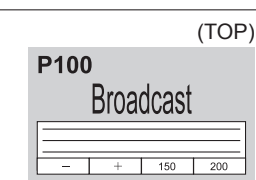
■ Using teletext conveniently

Reveal hidden data

MENU → R ● Re-hide → R

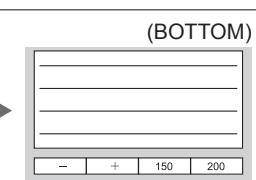
MENU → G

(TOP)



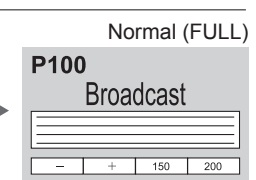
(Expand the TOP half)

(BOTTOM)



(Expand the BOTTOM half)

Normal (FULL)



HOLD

If you wish to hold the current page without updating

Stop or resume automatic updating

HOLD
■ To resume → HOLD

INDEX

Return to the main index page

INDEX

Call up subtitles

STTL

- Call up P801 (subtitle page) if available.
- If you press this button during P801 is displayed, teletext mode will be cancelled and return to TV.

View in multi window

MULTI PIP



- Operations can be made only in Teletext screen.

Store frequently viewed pages

Store frequently viewed pages in the colour bar (List mode only)

As page is displayed
Corresponding colour button → OK press and hold

P100 Broadcast
101 200 400 888
The number changes to white.

■ To change stored pages

Colour button you want to change → Enter new page number
1 2 3
4 5 6
7 8 9
0 → OK press and hold

View sub page

View sub page (Only when teletext is more than one page)

← 01 02 03 04 05 → Appears at upper-left corner of the screen

■ To view specific sub page

MENU → B → Enter the 4-digit number
example: P6
0 0 0 6
T0006

- Sub pages:
The number of sub pages varies depending on the broadcasters (up to 79 pages). It may take some time for searching, during which time you can watch TV.

Watch TV while waiting for update

View the TV picture while searching for a teletext page

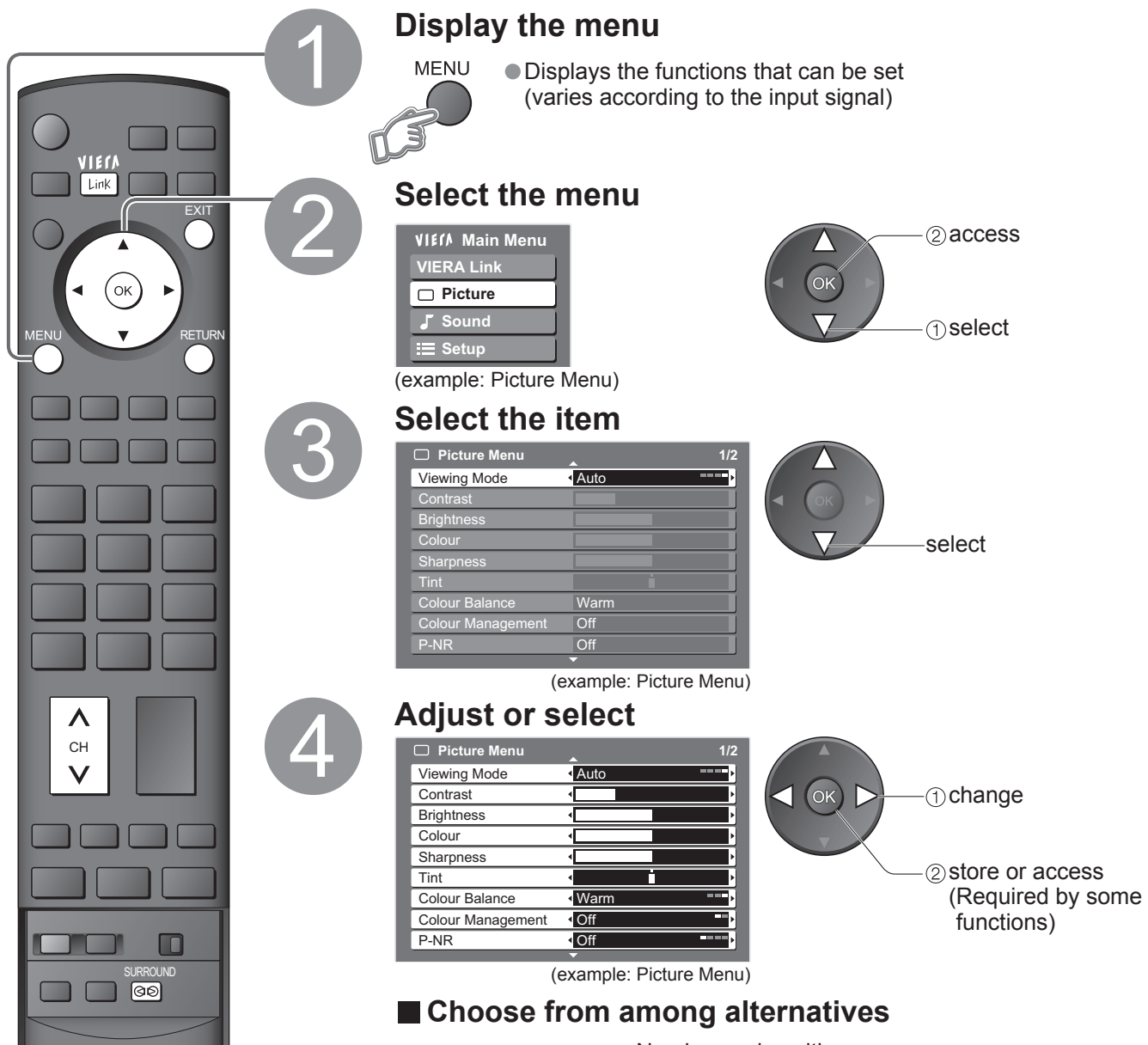
Teletext automatically updates itself when new information becomes available.
Changes to TV screen temporarily

MENU → Y → Appears when updating is completed → Y → View the updated page
(You cannot change the channel.)

- The news page provides a function that indicates arrival of latest news ("News Flash").

How to Use Menu Functions

Various menus allow you to make settings for the picture, sound, and other functions.



■ To return to TV at any time



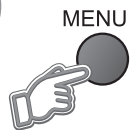
- To return to the previous screen



Note

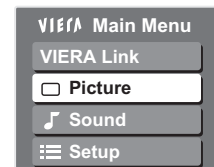
- To initialize all settings
 - ➔ “Shipping Condition” (p. 26)

Display the menu

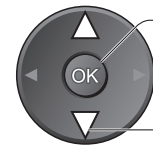


- Displays the functions that can be set (varies according to the input signal)

Select the menu



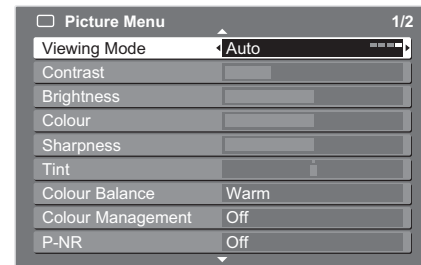
(example: Picture Menu)



- ② access

— ① select

Select the item

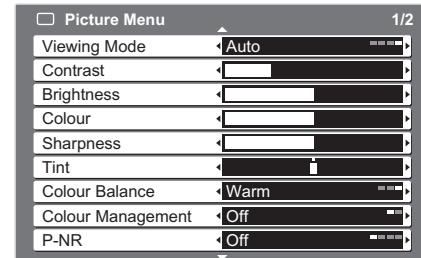


(example: Picture Menu)

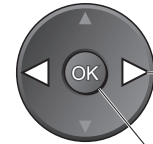


—select

Adjust or select



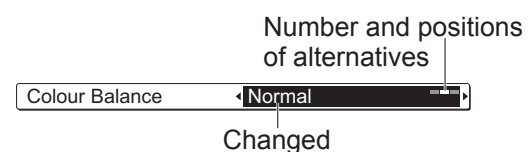
(example: Picture Menu)



—① change

- ② store or access
(Required by some functions)

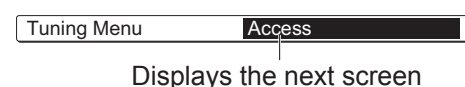
■ Choose from among alternatives



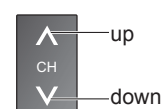
■ Adjust using the slide bar



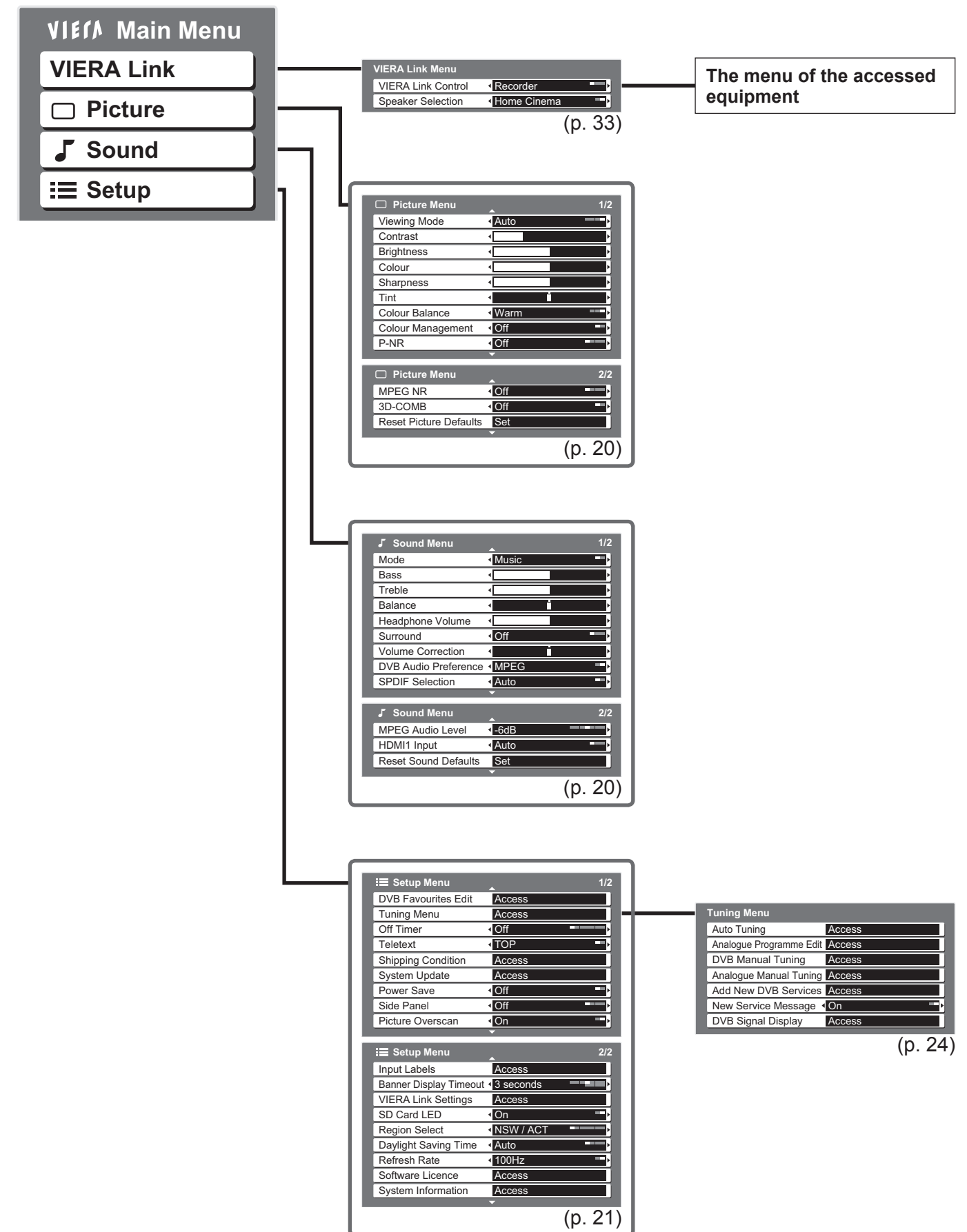
■ **Go to the next screen**



■ To change menu pages



■ Overview



- Only available items can be selected.

- How to Use Menu Functions (picture, sound quality, etc.)

Advanced

How to Use Menu Functions

■ Menu list

Menu	Item	Adjustments / Configurations (alternatives)
VIERA Link	VIERA Link Control	Controls the connected Panasonic equipment “Easy control only with VIERA remote control” (p. 33) “Speaker control” (p. 33)
	Speaker Selection	● You can also access VIERA Link Menu directly using the VIERA Link button on the remote control.
Picture	Viewing Mode	Basic picture mode (Dynamic / Normal / Cinema / Auto) ● Set for each input signal
	Contrast, Brightness, Colour, Sharpness	Adjusts colour, brightness, etc. for each picture mode to suit your taste
	Tint	Adjusts tint of image ● For NTSC signal reception only
	Colour Balance	Chooses the colour balance of the entire image (Cool / Normal / Warm)
	Colour Management	Automatically adjusts colours to vivid ones (Off / On) ● Not valid on PC signal
	P-NR	Picture Noise Reduction Automatically reduces unwanted picture noise (Off / Normal / Dynamic / Auto) ● Not valid on HDMI, PC signal or DVB
	MPEG NR	Automatically reduces picture noise of digital signals and flicker noise in the contoured parts of a picture (Off / Min / Mid / Max)
	3D-COMB	Automatically makes still pictures and slow pictures look more vivid (Off / On) ● For PAL or NTSC signal reception only ● Not valid on S-Video, components, PC, HDMI and SD Card ● Cannot be used with DVB
	Reset Picture Defaults	Press the OK button to reset the present Picture Mode to the default settings
Sound	Mode	Basic sound mode (Music / Speech)
	Bass	Adjusts the output level of deep bass
	Treble	Adjusts the output level of high-pitch, shrill sound
	Balance	Adjusts volume level of right and left speakers
	Headphone Volume	Adjusts the volume of the headphones
	Surround	Surround sound settings (Off / Simulated Surround / SRS TruSurround XT) Simulated Surround: Provides a dynamic enhancer to simulate improved spatial effects SRS TruSurround XT: SRS TruSurround XT® creates a high quality surround sound effect using just two speakers from the source which can output surround encoded signals ● Switching is also possible by the Surround button on the remote control (p. 7)
	Volume Correction	Adjusts volume of individual channel or input mode
	DVB Audio Preference	Selects the initial setting for Audio tracks (Dolby Digital / MPEG) If programme has both Dolby Digital and MPEG audio tracks, priority is given to what you select Dolby Digital : A method of coding digital signals developed by Dolby Laboratories. Apart from stereo (2ch) audio, these signals can also be multi-channel audio. MPEG : An audio compression method that compresses audio to small size without any considerable loss of audio quality. ● DVB mode only
	SPDIF Selection	Selects the initial setting for digital audio output signal from DIGITAL AUDIO OUT terminal (Auto / PCM) Auto: Dolby Digital is output as Dolby Digital Bitstream. MPEG is output as PCM. PCM: Dolby Digital is output as PCM. MPEG is output as PCM. ● DVB mode and Movie View Mode (p. 31) only
	MPEG Audio Level	Normally, MPEG sound is larger than Dolby Digital one You can adjust the audio level of MPEG as the initial setting ● 0dB to -12dB in -2dB reductions ● DVB mode only
	HDMI1 / 3 Input	Select to fit the input signal (Auto / Digital / Analogue) (p. 29) Auto : Automatic detection of digital or analogue sound source Digital : HDMI cable connection Analogue : HDMI-DVI adapter cable connection ● HDMI input mode only ● HDMI2 terminal is for digital signal only ● No setting for HDMI2 available
	Reset Sound Defaults	Press the OK button to reset the present Sound Mode to the default settings

■ Menu list

Menu	Item	Adjustments / Configurations (alternatives)
Tuning Menu	DVB Favourites Edit	Creates list of favourite programmes (p. 23)
	Auto Tuning	Automatically sets the channels received in the area (p. 24)
	Analogue Programme Edit	Edits analogue channels (p. 25)
	DVB Manual Tuning	Sets the DVB channels manually (p. 25)
	Analogue Manual Tuning	Sets the analogue channels manually (p. 25)
	Add New DVB Services	Adds new DVB services (p. 25)
	New Service Message	Selects whether to give a notification message when a new DVB service is found (p. 25)
	DVB Signal Display	Checks the DVB signal condition (p. 25)
	Off Timer	Sets the time the TV automatically turns Off (Off / 15 / 30 / 45 / 60 / 75 / 90 minutes)
	Teletext	Teletext display mode (TOP (FASTEXT) / List) (p. 16)
Setup	Shipping Condition	Resets all settings, for example, when moving house (p. 26)
	System Update	Downloads new software to TV (p. 23)
	Power Save	Reduces brightness of picture to economise on power consumption (Off / On)
	Side Panel	Increases the brightness of the side panel (Off / Low / Mid / High) ● The recommended setting is “High” to prevent panel “image retention”
	Picture Overscan	Selects the screen area displaying the image (Off / On) On : Enlarged the image to hide the edge of the image. Off : Displayed the image in the original size. ● Set to “On” if noise is generated on the edge of the screen. ● This function is available when aspect is set to 16:9. ● 1080i or 1080p signal only
	Input Labels	Labels or skips each input terminals (p. 27)
	Banner Display Timeout	Sets how long the information banner (p. 11) stays on screen ● 0 (No display) to 10 sec. in 1-sec. increments
	VIERA Link Settings	VIERA Link
		Power off Link
		Power on Link
	SD Card LED	Lights blue LED while SD Card is inserted (Off / On) (p. 31)
	Region Select	Selects the region where you live to adjust the standard time (NSW/ACT / Victoria / Queensland / South Australia / Western Australia / Northern Territory / Tasmania) (p. 23)
	Daylight Saving Time	Select time offset from the standard time for Summer Time (Auto / Off / +1/2 Hr / +1 Hr) (p. 23) ● Set to “Auto” normally
	Refresh Rate	Changes the image processing of the panel (depending on the input signal) (50Hz / 100Hz) ● Set to “100Hz” normally
	Software Licence	Displays the software licence information
	System Information	Displays the system information of this TV

- A different menu will be displayed while PC, DVI to HDMI adapter cable or SD Card is used. (p. 28-29 and p. 31)
- Only available items can be selected.

DVB Settings (DVB mode)

DVB Settings provide access to various advanced features.

1

If in Analogue mode
Select DVB

2

Display the menu

3

Select "Setup"

4

**Select "DVB Favourites Edit", "System Update",
"Region Select" or "Daylight Saving Time"**

5

Set

TV

MENU

EXIT

OK

R

G

Y

B

TV

INPUT

2 access

1 select

2 access

1 select

1/2

Setup Menu

DVB Favourites Edit

Tuning Menu

Off Timer

Teletext

Shipping Condition

System Update

Power Save

Side Panel

Input Labels

2/2

Setup Menu

Banner Display Timeout

VIERA Link Settings

SD Card LED

Region Select

Daylight Saving Time

Refresh Rate

Software Licence

System Information

TV

EXIT

1

TV

2

MENU

3

OK

4

OK

5

EXIT

2 access

1 select

2 access

1 select

1/2

Setup Menu

DVB Favourites Edit

Tuning Menu

Off Timer

Teletext

Shipping Condition

System Update

Power Save

Side Panel

Input Labels

2/2

Setup Menu

Banner Display Timeout

VIERA Link Settings

SD Card LED

Region Select

Daylight Saving Time

Refresh Rate

Software Licence

System Information

TV

EXIT

List favourite services

DVB Favourites Edit

Create your favourite service List from various broadcasters (up to 4: Fav List1 / Fav List2 / Fav List3 / Fav List4). The list is displayed in information banner (p. 11), TV Guide (p. 12) and then easily accessed.

Select a service and add it to the list

A service is added

To display another List → B

To add all services to the list → Y

To edit List

Select the field of List to edit and:

- To name the List → R → Select the character → OK → RETURN
- To move the service → G → Select the new position → Confirm → OK
- To delete the service → Y → OK
- To delete all services → B → OK

Note

- Channel numbers cannot be changed, due to broadcast restrictions.

Download new software to TV.

- For details (p. 37)

If System Update is performed, the software will be updated (it may change TV functions). If you do not wish to do so, set "Auto Update Search in Standby" to Off.

Select "Auto Update Search in Standby" and then set "On" or "Off"

On: Automatically performs a search in standby and downloads an update, if any software updates are available

To update immediately

Select "System Update Search Now"

Searches for an update (for several min.) and displays a corresponding message if any

Download

Download may take for about 20 min.

Note

- During downloading, the TV will display a blank screen for 40 to 50 seconds. Do not interrupt the TV during this procedure.

Adjust the standard time

Region Select

Adjust for Summer Time

Daylight Saving Time

Select the region where you live to adjust the standard time.

- The time contained in the broadcast signal is UTC (Universal time, coordinated).

Select time offset from the standard time for Summer Time.

- Normally select "Auto".
- If there is a gap between displayed time and actual time, set this function.

Region	Standard time	Daylight Saving Time: Auto (During Summer Time)
NSW / ACT	+10:00	+11:00
Victoria		
Queensland	+10:00	
South Australia	+9:30	+10:30
Western Australia	+8:00	+9:00
Northern Territory	+9:30	
Tasmania	+10:00	+11:00

(Based on GMT)

● DVB Settings (DVB)

Advanced

22

23

Editing and Setting Channels

The current channel settings can be changed according to your needs and reception conditions. You can re-tune all TV channels when moving house or search for new services which may have recently started broadcasting.

1

Select DVB or Analogue

● “DVB Manual Tuning”, “Add New DVB Services”, “New Service Message” and “DVB Signal Display” are available in DVB mode only.

● “Analogue Programme Edit” and “Analogue Manual Tuning” are available in Analogue mode only.

2

Display the menu

3

Select “Setup”

VIÉRA Main Menu

VIERA Link

Picture

Sound

Setup

4

Select “Tuning Menu”

Setup Menu

DVB Favourites Edit

Tuning Menu

Off Timer Off

Teletext TOP

Shipping Condition

System Update

Power Save Off

Side Panel Off

Input Labels

5

Select a function

Tuning Menu

Auto Tuning Access

Analogue Programme Edit Access

DVB Manual Tuning Access

Analogue Manual Tuning Access

Add New DVB Services Access

New Service Message On

DVB Signal Display Access

6

Set

■ **To return to TV**

EXIT

■ **To return to TV**

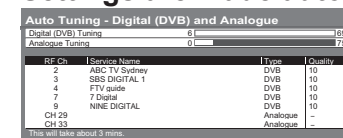
F

Automatically set the DVB and Analogue channels received in the area.

Access “Auto Tuning”



Settings are made automatically

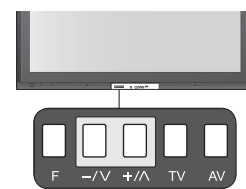


- All previous settings are erased.
- When the operation is completed, the digital service at programme position “1” will be displayed. If no DVB services are found, the first analogue service will be displayed.
- If tuning has not done completely → “DVB Manual Tuning”, “Analogue Manual Tuning”

For Auto Tuning, using the buttons on the front of the TV

- ① Press repeatedly until “Auto Tuning” appears → F
- ② Access “Auto Tuning” → TV
- ③ Start “Auto Tuning” → TV

■ **To return to TV** → F



Set channels automatically

Auto Tuning

Edit Analogue channels

Analogue Programme Edit

- Delete
- Add
- Move
- Change name
- Skip

Edit the analogue programme position settings

① Select the channel to edit

Prog.	Chan.	Name	Skip
1	CH33	1 2 3	Off
2	CH21	X Y Z	Off
3	CH21	F T P	Off
4	CH60		Off
5	CH21	4 5 6	Off

Cursor →

select

② Edit

■ **To delete** → R → After confirming, press R

■ **To add** → G → After confirming, press G

■ **To move** → Y → Select new position → Y

■ To change the name of the broadcaster displayed when selecting channels

Prog.	Chan.	Name	Skip
1	CH33	1 2 3	Off
2	CH21	X Y Z	Off
3	CH21	F T P	Off
4	CH60		Off
5	CH21	4 5 6	Off

Select the “Name” field

Enter the “User input” mode

Select the character

OK Set

RETURN Store

(Maximum: five characters)

■ To skip the channel

- This function is only effective when pressing the Programme Up / Down button on the TV or the remote control.

Prog.	Chan.	Name	Skip
1	CH33	1 2 3	Off
2	CH21	X Y Z	Off
3	CH21	F T P	Off
4	CH60		Off
5	CH21	4 5 6	Off

Select the “Skip” field

Select “On”

Set DVB channel manually

DVB Manual Tuning

Normally use “Auto Tuning” or “Add New DVB Services” for the DVB channel setting. If tuning has not done completely, use this function.

Physical Channel	Frequency	Signal Quality	Signal Strength
CH21	474.00 MHz	10	10
CH21	474.00 MHz	10	10

① select channel

② adjust frequency (set where the level of “Signal Quality” becomes the maximum)

③ search

Set Analogue channel manually

Analogue Manual Tuning

Set Analogue channel manually after Auto Tuning.

If a VCR is connected with only the RF cable, select programme position “0”.

Analogue Manual Tuning

Programme 1 [CH33]

Manual Tuning 0

Select the programme position

Select the channel

Search and store

Add DVB channel automatically

Add New DVB Services

Any new services found will be added automatically.

Add New DVB Services

Please wait! 0

Prog.	RF Ch.	Service Name	Net ID	TS ID	Quality
1	CH33	ABC TV Sydney			10
2	CH33	SBS Digital 1			10
3	CH33	7 Digital			10
4	CH33	9 Digital			10

This will take about 3 mins.

- The new service is added with the current settings saved as they are.

Display a notification message

New Service Message

Selects whether to give a notification message when a new DVB service is found. (Off / On)

New DVB service found!

Press OK to add new service.

Press EXIT to ignore.

Check DVB signal

DVB Signal Display

Selects a service and checks the DVB signal condition.

Use for adjusting the direction of the aerial.

- To change the service during the menu appears → CH

DVB Signal Display

Service Name [CH33] 7.7 Digital

Signal Quality

Signal Strength

0 5 10

Signal Quality:

- Green bar → Good
- Yellow bar → Poor
- Red bar → Bad (Check the aerial)

Restore Settings

Resets the TV to its original condition, i.e. no channels tuned in. All settings (channels, picture, sound quality, etc.) are reset.

1

Display the menu

MENU

2

Select "Setup"

VIERA Main Menu
VIERA Link
Picture
Sound
Setup

2 access
1 select

3

Select "Shipping Condition"

Setup Menu 1/2
DVB Favourites Edit
Tuning Menu
Off Timer Off
Teletext TOP
Shipping Condition Access
System Update
Power Save Off
Side Panel Off
Input Labels

2 access
1 select

4

Set

EXIT

■ To return to TV

EXIT

Restore Settings

Shipping Condition

1

Check the message and initialise

Shipping Condition
Analogue & DVB tuning data will be erased
Are you sure?
Are you sure?
Confirm
EXIT
RETURN

OK set

2

Follow the on-screen instructions

● "Auto Tuning" will automatically start. (p. 9)

■ To re-tune TV channels only, e.g. after moving house
➡ "Auto Tuning" (p. 24)

Input Labels

For easier identification and selection of the input mode, you can label each input terminals or skip terminal that is not connected to any equipment.
(To select the input mode ➡ p. 14)

1

Display the menu

MENU

2

Select "Setup"

VIERA Main Menu
VIERA Link
Picture
Sound
Setup

2 access
1 select

3

Select "Input Labels"

Setup Menu 1/2
DVB Favourites Edit
Tuning Menu
Off Timer Off
Teletext TOP
Shipping Condition
System Update
Power Save Off
Side Panel Off
Input Labels Access

2 access
1 select

4

Select a input terminal and set

Input Labels
AV1 DVD
AV2 AV2
AV3 AV3
AV4 AV4
PC PC
HDMI1 HDMI1
HDMI2 HDMI2
HDMI3 HDMI3

2 set
1 select

■ To return to TV

EXIT

The labels you set will be displayed in "Input Selection" menu (p. 14) or banner.
● If "Skip" is selected, you cannot select the mode.

■ User input

You can name each input terminals freely.

Select "User input"

1 select
2 access

Set characters

User input
Name
A B C D E F G H I J K L M N O P Q R S T
U V W X Y Z 0 1 2 3 4 5 6 7 8 9 ! : #
a b c d e f g h i j k l m n o p q r s t
u v w x y z () + - . *
(maximum: ten characters)

1 select
2 set

Store RETURN

RETURN

Displaying PC Screen on TV

The screen of the PC connected to the TV can be displayed on the TV.
You can also listen to PC sound with the audio cable connected. To connect PC (p. 34)

1

Select the external input

2

Select "PC"

AV

Input Selection

AV1

AV2

AV3

AV4

PC

HDMI1

HDMI2

HDMI3

TV

access

select

● Corresponding signals (p. 39)

● If "H-freq." or "V-freq." is shown in red, the signals may not be supported.

■ To return to TV

TV

■ PC menu setting (changed as desired)
● To make settings ➡ "How to Use Menu Functions" ① to ④ (p. 18)

Menu	Item	Adjustments / Configurations (options)	
Picture	Advanced PC Settings	W/B High R	White balance of bright red area
		W/B High B	White balance of bright blue area
		W/B Low R	White balance of dark red area
		W/B Low B	White balance of dark blue area
		Gamma	(2.0 / 2.2 / 2.5 / S Curve)
	Reset PC Settings	Press the OK button to reset to the default settings	
Setup	PC Setup	Input Resolution	Switches to a wide view ● VGA (640 × 480 pixels), WVGA (852 × 480 pixels), XGA (1,024 × 768 pixels), WXGA (1,366 × 768 pixels) ● Options change depending on signals
		Clock	Set to the minimum level if noise occurs
		H-pos	Adjusts horizontal position
		V-pos	Adjusts vertical position
		Clock Phase	Eliminates flicker and distortion ● Adjust after Clock adjustment ● Set to the minimum level if noise occurs
		Sync	PC sync signal type (H & V / On G) ● H & V : Horizontal and Vertical sync from your PC (Most common sync format) On G : Sync on Green sync from your PC
		Reset PC Settings	Press the OK button to reset to the default settings

● Other items ➡ p. 20 and p. 21

HDMI Functions

HDMI (high-definition multimedia interface) allows you to enjoy high-definition digital images and high-quality sound by connecting the TV and the equipment.
HDMI-compatible equipment (*1) with an HDMI or DVI output terminal, such as a set top box or a DVD player, can be connected to the HDMI terminal using an HDMI compliant (fully wired) cable.
About connections, see "External Equipment" (p. 34).

- Note
- HDMI is the world's first complete digital consumer AV interface complying with a non-compression standard.
 - Audio settings can be made on the "HDMI1 / 3 Input" menu screen. (p. 20)
 - Applicable audio signal sampling frequencies (2ch L.PCM): 48 kHz, 44.1 kHz, 32 kHz
 - HDMI2 terminal is for digital audio signal only.
 - Use with a PC is not assumed.
 - If the connected equipment has an aspect adjustment function, set the aspect ratio to "16:9".
 - These HDMI connectors are "type A".
 - These HDMI connectors are compatible with HDCP (High-Bandwidth Digital Content Protection) copyright protection.
 - An equipment having no digital output terminal may be connected to the input terminal of either "Component", "S-VIDEO", or "Video" to receive analogue signals.
 - The HDMI input terminal can be used with only the following image signals: 480i, 480p, 576i, 576p, 720p, 1080i and 1080p. Match the output setting of the digital equipment.
 - For details of the applicable HDMI signals, see p. 39.

■ DVI connection
If the external equipment has only a DVI output, connect to the HDMI1 / 3 terminal via a DVI to HDMI adapter cable (*2).
When the DVI to HDMI adapter cable is used, connect the audio cable to the audio input terminal (HDMI1: use AUDIO IN terminals / HDMI3: use AV4 audio terminals).

■ DVI Position Settings
If the picture position is not fit to the screen during the DVI connection, adjust the position on "DVI Position Settings" in Setup Menu. The settings are memorized for each HDMI terminals and input signals.
● To make settings ➡ "How to Use Menu Functions" ① to ④ (p. 18)

Menu	Item	Adjustments	
Setup	DVI Position Settings	H-pos	Adjusts horizontal position
		V-pos	Adjusts vertical position
		Reset DVI Position Settings	Press the OK button to reset to the default settings

(*1): The HDMI logo is displayed on HDMI-compliant equipment.
(*2): Enquire at your local digital equipment retailer shop.

Viewing from SD Card

Photo View: The still images recorded by the digital camera can be displayed.

Movie View: The moving pictures recorded by the digital video camera can be played back.

1 Insert the SD Card

2 Select "Photo View" or "Movie View"

3 Select the file to be viewed

4 View

To return to TV
EXIT or SD CARD

SD Card

Photo View

Movie View

Photo View

Movie View

View

Photo View

Movie View

Caution

- Signal output from all AV terminals will be disabled during SD Card operations. But the sound in Movie View can be output from AUDIO out and DIGITAL AUDIO OUT terminals.
- "Date" shows the date on which the recording was made by the digital camera or digital video camera. It shows "***/**/****" when recordings are made without date signal.

(Photos and Movies)

SD Card

To open
Blue LED
Open the cover

To insert
Label surface
Push until a click is heard

To remove
Press the centre of the card

Blue LED lights while SD Card is inserted if set "SD Card LED" to "On" in Setup Menu (p. 21).

Slide show (Photo View)

Start Slide show (operate in step 3 or 4)

- Select the photo for the first view
- Start Slide show

Slide show settings (operate in step 3 or 4)

- Display the menu
- Select "Viewing Setup"
- Select the functions and set

Menu	Item	Adjustments / Configurations (alternatives)
Viewing Setup	Interval	Select slide show interval (5 / 10 / 15 / 30 / 60 / 90 / 120 seconds)
	Repeat	Slide show repeat (Off / On)

Audio Settings (Movie View)

To confirm or change the current sound status (operate in step 4)

- Display the current sound status
 - Press repeatedly until the desired sound is selected (if the movie has multiple audio signals)
- It may take several seconds to change the sound.

Audio output settings (operate in step 3 or 4)

- Display the menu
- Select "Sound"
- Select "SPDIF Selection" and set

SPDIF : A standard audio transfer file format
Selects the initial setting for digital audio output signal from DIGITAL AUDIO OUT terminal (Auto / PCM)
Auto: Dolby Digital is output as Dolby Digital Bitstream. MPEG is output as PCM.
PCM: Dolby Digital is output as PCM. MPEG is output as PCM.

On screen messages

Message	Meaning / Action
Is SD Card in?	Insert a SD card.
No valid file to play	The card has no data.
Cannot read file	The file is broken or unreadable. The TV does not support the format. (For the applicable formats and data, see p. 38.)
This operation is not possible	Your operation is not available.
Confirm SD card	The inserted SD card has a problem.

VIERA Link “HDAVI Control™”*

*Enjoy additional HDMI Inter-Operability with Panasonic products which have “HDAVI Control” function. This TV supports “HDAVI Control 2” function.

Connections to some Panasonic equipment (DVD Recorder DIGA, HD Video Camera, Player theatre, Amplifier, etc.) with HDMI cables allow you to interface them automatically.

The equipment with “HDAVI Control” function enables the following operations:

- Easy playback (p. 33)
- Power on Link (p. 33)
- Power off Link (p. 33)
- Speaker control (p. 33)

In addition, the equipment with “HDAVI Control 2” function enables the following operation:

- Easy control only with VIERA remote control (p. 33)

These features are limited to models incorporating Panasonic’s “HDAVI Control” and “VIERA Link”. VIERA Link “HDAVI Control”, based on the control functions provided by HDMI which is an industry standard known as HDMI CEC (Consumer Electronics Control), is a unique function that we have developed and added. As such, its operation with other manufacturers’ equipment that supports HDMI CEC cannot be guaranteed.

Refer to individual manuals for compatibility information. About applicable equipment, consult your local Panasonic dealer.

■ HDMI cable

This function needs an HDMI compliant (fully wired) cable. Non-HDMI-compliant cables cannot be utilized. It is recommended that you use Panasonic’s HDMI cable. Recommended part number:

- RP-CDHG15 (1.5 m)
- RP-CDHG30 (3.0 m)
- RP-CDHG50 (5.0 m)

■ Preparations

Setup the equipment to enable this function. Read the manuals of the equipment.

About connections, see “External Equipment” (p. 35). Read the manuals of the equipment too.

■ For the first time / When adding new equipment, reconnecting equipment or changing setup

After connection turn the equipment on and then switch the TV on.

Select the input mode to HDMI1, HDMI2 or HDMI3 (p. 14), and make sure that an image is displayed correctly.

1 Display the menu

2 Select “Setup”

3 Select “VIERA Link Settings”

4 Select “VIERA Link” and set to “On”

Easy control only with VIERA remote control

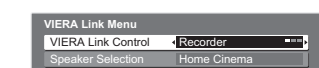
You can control some functions of the connected Panasonic equipment with this TV remote control (point the remote control at the TV’s signal receiver).

- If you cannot access the menu, check the settings and the equipment (p. 32).

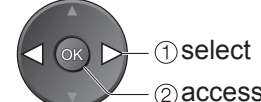
Access the menu of the equipment

① Display “VIERA Link Menu” →

② Select “VIERA Link Control”

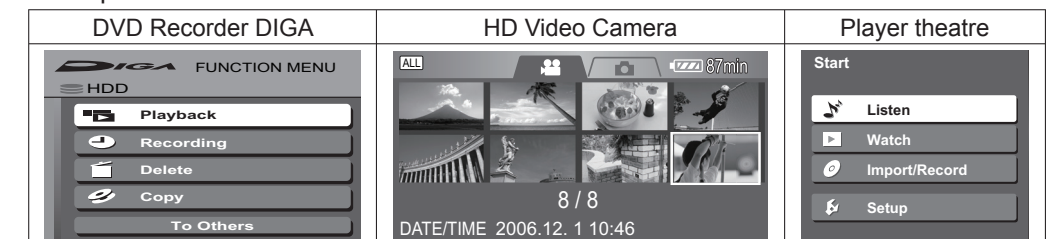


③ Select the equipment you want to access



④ Operate the menu of the equipment

- Example:



- About the operations for the equipment, read the manual of the equipment.

- Available VIERA remote control buttons: (depending on the connected equipment)

	Move the cursor / select the menu
	Move the cursor / access / adjust
	Store / set / access
	Return to the previous menu
	Exit the menu
	The same functions with the OPTION button of the equipment
	Access when the key words are displayed on colour bar

Easy playback

Automatic Input switching-When the connected Panasonic equipment is operated, input mode is switched automatically. When it is stopped operating, input mode is not returned.

Speaker control

You can control the theatre speaker with TV’s remote control.

This function is available when Panasonic Amplifier or Player theatre is connected.

- If you cannot access the menu, check the settings and the equipment (p. 32).

① Display “VIERA Link Menu” →

② Select “Speaker Selection”



③ Set to “Home Cinema” or “TV”



■ Home Cinema

Adjustment for equipment (automatically turned on if it is in Standby mode).

Volume up / down →

Mute →

- The sound of TV speakers is mute.
- When the equipment is turned off, TV speakers will be active.

■ TV

TV speakers are active.

Power on Link

Set to “Set”

→ When the connected Panasonic equipment starts playback or direct navigator / function menu for the equipment are activated, the TV is automatically turned on. (Only when TV is in Standby mode.)

Power off Link

Set to “Set”

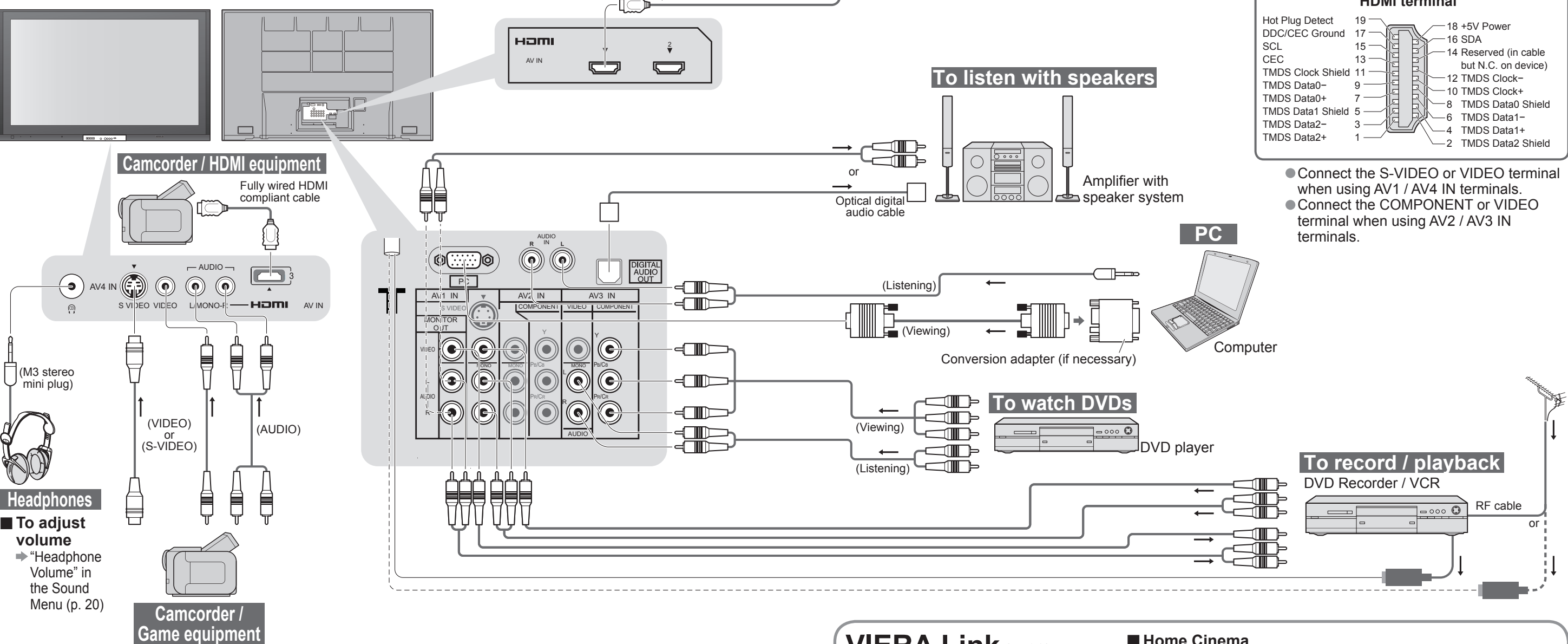
→ When TV is set to Standby mode, the connected Panasonic equipment is also automatically set to Standby.

- This function will work even if the TV enters standby mode automatically by Off Timer function or auto power standby function.

- The TV remains on even if the “VIERA Link” compatible equipment is turned off.

External Equipment

These diagrams show our recommendations for how to connect the TV to your various equipment. For other connections, consult the instructions for each piece of equipment, the table below, and the specifications (p. 43).



Types of connectable equipment to each connector

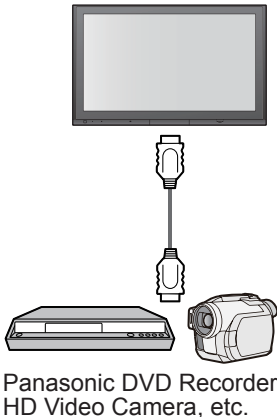
Connector	AV1 IN	AV2 IN	AV3 IN	AV4 IN (Front of TV)	MONITOR OUT	DIGITAL AUDIO OUT	HDMI
Recording / Playback (equipment)							1 2 3
■ To record / playback videocassettes / DVDs (VCR / DVD recorder)	○	○	○	○	○		○ ○ ○
■ To watch DVDs (DVD player)	○	○	○	○			○ ○ ○
■ To watch camcorder images (Video camera)	○	○	○	○			○ ○ ○
■ To watch satellite broadcasts (Set top box)	○	○	○	○			○ ○ ○
■ To play games (Game equipment)	○	○	○	○			○ ○ ○
■ To use amplifier with speaker system					○	○	○ ○ ○
■ VIERA Link							○ ○ ○

○: Recommended Connection

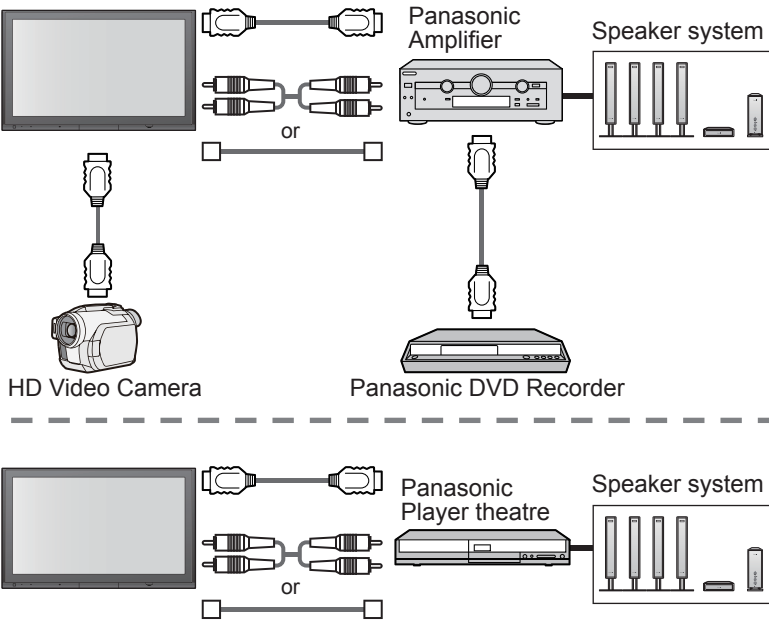
VIERA Link (p. 32)

- Use fully wired HDMI compliant cable.
- Read the manuals of the equipment too.

Easy playback, Easy control only with VIERA remote control



Home Cinema



Technical Information

Channel Allocation (Analogue mode)

CH Display / Receive Channel	CH Display / Receive Channel	CH Display / Receive Channel
CH 0 } CH 5	S 6 } S 10	CH 10 } CH 12
S 2 } S 5	CH 6 } CH 9	S 11 } S 44
CH 5A	CH9A	CH 20 } CH 75

Rating (DVB mode)

Rating	Meaning	Rating	Meaning
-	Not classified	M	Mature
P	Pre school	MA 15+	Mature Adult 15+
C	Children	AV 15+	Adult strong Violence 15+
G	General	R	Restricted 18+
PG	Parental Guidance recommended		

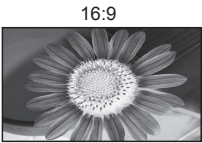
Aspect Ratio

The optimum size and aspect can be chosen, and you can enjoy finer images. (p. 11)

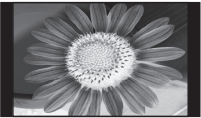
Signal name		Aspect modes							
		16:9	14:9	Just	4:3	4:3 Full	Zoom1	Zoom2	Zoom3
TV/AV1/AV2/AV3/AV4	PAL	○	○	○	○	—	○	○	○
	PAL 525/60	○	○	○	○	—	○	○	○
	DVB-T	○	—	—	—	—	—	—	—
	M.NTSC	○	○	○	○	—	○	○	○
	NTSC	○	○	○	○	—	○	○	○
Component/HDMI	480i (60 Hz)	○	○	○	○	—	○	○	○
	480p (60 Hz)	○	○	○	○	—	○	○	○
	576i (50 Hz)	○	○	○	○	—	○	○	○
	576p (50 Hz)	○	○	○	○	—	○	○	○
	720p (50 Hz)	○	○	○	○	○	○	○	○
	720p (60 Hz)	○	○	○	○	○	○	○	○
	1,080i (50 Hz)	○	○	○	○	○	○	○	○
	1,080i (60 Hz)	○	○	○	○	○	○	○	○
	1,080p (50 Hz)	○	○	○	○	○	○	○	○
	1,080p (60 Hz)	○	○	○	○	○	○	○	○
PC input		○	—	—	○	—	—	—	—

Note

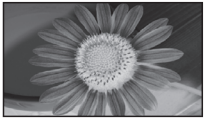
- The ratio varies depending on the programme, etc. If the ratio is greater than the standard "16:9", black bands may appear at the top and bottom of the screen.
- If the screen size looks unusual when a widescreen-recorded programme is played back on a VCR, adjust the tracking of the VCR. (See the VCR manual.)
- To select the ratio manually: (Only "16:9" or "4:3" in PC mode)



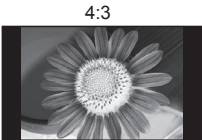
Directly displays the image at "16:9" without distortion (anamorphic).



Displays the image at the standard "14:9" without enlargement.



Displays a 4:3 image full-screen. Stretching is only noticeable at the left and right edges.



Displays the image at the standard "4:3" without distortion.



Displays a "4:3" image enlarged horizontally to fit the screen.



Displays a "16:9" letterbox or "4:3" image without distortion.



Displays a "16:9" letterbox (anamorphic) image full-screen without distortion.



Displays a "2.35:1" letterbox (anamorphic) image full-screen without distortion. At "16:9", displays the image at its maximum (with slight enlargement).

Updating the software system

Update system software regularly to ensure that you have latest version software. If there is an update available, a notification banner is displayed when the channel has the update information.

- To download new software, press "OK" → Downloading (approx. 20 min.)
- If you choose not to download, press "EXIT".

To update automatically

- Set "Auto Update Search in Standby" to "On" (p. 23)
- If there is a new version software being broadcast, the TV will download this automatically.
- The automatic updating sequence is carried out at 3:00 AM and 5:00 AM every night under the following conditions.
 - Standby (TV turned Off with the remote control)
 - Recording is not in progress.

To update manually

- Perform "System Update Search Now" (p. 23)
- If there is an update available, a notification banner is displayed.
- To download new software, press "OK" → Downloading (approx. 20 min.)
- If you choose not to download, press "EXIT".

Note

- During downloading, do not turn Off the TV or touch any button. (The TV is automatically activated after downloading is completed.)

VIERA Link "HDAVI Control™"

HDMI connections to some Panasonic equipment allow you to interface them automatically. (p. 32)

- This function may not work normally depending on the equipment condition.
- Image or sound may not be available for the first few seconds when the playback starts.
- Image or sound may not be available for the first few seconds when Input mode is switched.
- Volume function will be displayed when adjusting the volume of the equipment.
- If you connect the equipment that has "HDAVI Control 2" function to the TV with HDMI cable, the sound from DIGITAL AUDIO OUT terminal can be output as multi channel surround.
- Easy playback is also available by using the remote control for Amplifier or Player theatre. Read the manuals of the equipment.
- If you connect the same kind of equipment at once (for example: one DIGA to HDMI1 / another DIGA to HDMI2), VIERA Link is available for the terminal with the smaller number.
- "HDAVI Control 2" is the newest standard (current as of February, 2007) for Panasonic's HDAVI Control compatible equipment. This standard is compatible with Panasonic's conventional HDAVI equipment.

Stereo / Bilingual Sound Selection (Analogue mode)

When you receive the stereo / bilingual sound system, sound output modes can be selected by pressing the **I/II** Stereo / Bilingual Sound Selection button.

Audio Signal	STEREO	MAIN I	SUB II	MONO
Mode Indicator	⊕	I	II	▽

NICAMUsed in New Zealand, Singapore, Hong Kong etc.

Type of broadcast	Regular broadcast (Standard Audio)	Regular + NICAM MONO I (MAIN I)	NICAM STEREO	NICAM DUAL MONO (MAIN I / SUB II)
Mode Indicator	No Indicator ↔ ▽	I ↔ ▽	⊕ ↔ ▽	I ↔ II ▽

A2(German)Used in Australia, Malaysia etc.

Type of broadcast	Regular broadcast (Standard Audio)	BILINGUAL or DUAL MONO: MAIN I / SUB II	STEREO
Mode Indicator	No Indicator ↔ ▽	I ↔ II	⊕ ↔ ▽

Note

- If the stereo signal is poor or the receiving conditions are not optimum or if STEREO:MONO automatic switching occurs, it is recommended you switch from STEREO to MONO.
- Even when the contents of the receiving signal undergo changes, selection mode is kept intact.
- When the receiving conditions deteriorate, listening will be easier if the mode is set to the MONO position, using the stereo / bilingual sound selection button.
- DUAL, also known as DUAL MONO or as BILINGUAL is not currently transmitted in some countries.

Technical Information

Multi Window

- You can watch two images at once. (p. 11)
- The same input mode cannot be displayed at once.
 - The sound is active for main screen only in multi window.
 - You cannot change the aspect ratio in multi window.
 - Multi window cannot be used with PC, SD card or HDMI (available for main screen only).
 - Some signals are reformatted for suitable viewing on your display.
 - The display timeout for the input mode or programme position can be adjusted by “Banner Display Timeout” in Setup Menu (p. 21).

Cautions in handling SD Card

- Do not remove the card while the TV is accessing data (this can damage card or TV).
- Do not touch the pins on the back of the card.
- Do not subject the card to a high pressure or impact.
- Insert the card in the correct direction (otherwise, card may be damaged).
- Electrical interference, static electricity, or erroneous operation may damage the data or card.
- Back up the recorded data at regular intervals in case of deteriorated or damaged data or erratic operation of the TV. (Panasonic is not liable for any deterioration or damage of recorded data.)

Data format for Card browsing

- Photo : Still images recorded with digital still cameras compatible with JPEG files of DCF* and EXIF standards
Data format - Baseline JPEG (Sub-sampling 4:4:4, 4:2:2 or 4:2:0)
Max. number of files - 9,999
Image resolution - 160 × 120 to 10,000,000
- Movie : SD-Video Standard Ver. 1.2 [MPEG-2 (PS format)] and AVCHD Standard compatible files with an audio format that is either MPEG-1/Layer-2 format or Dolby Digital format
(A modified data with a PC may not be displayed correctly.)
- Compliant card type (maximum capacity): SDHC Card (4 GB), SD Card (2 GB), Multi Media Card (128 MB), miniSD Card (1 GB) (requiring miniSD adapter)
 - If miniSD Card is used, insert / remove it together with the adapter.
 - Check the latest information on the card type at the following website. (English only)
<http://panasonic.co.jp/pavc/global/cs/>
- *DCF (Design rule for camera file system): Unified standard established by Japan Electronics and Information Technology Industries Association (JEITA).

Note

- Format the card with the recording equipment.
- The picture may not appear correctly on this TV depending on the recording equipment used.
- Display may take some time when there are many files and folders.
- This function cannot display Motion JPEG and still image not DCF formatted (i.e. TIFF, BMP).
- A data modified with a PC may not be displayed.
- Images imported from a PC must be compatible with EXIF (Exchangeable Image File) 2.0, 2.1, and 2.2.
- Partly degraded files might be displayed at a reduced resolution.
- All “.JPG” extension datas in the card will be read in Photo View Mode.
- The folder and file names may be different depending on the digital camera used.
- Do not use two-byte characters or other special codes.
- The card may become unusable with this TV if file or folder names are changed.

PC connection

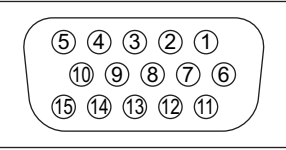
- A PC may be connected to this TV so that the PC screen is displayed and sound is heard from the TV.
- PC signals that can be inputted: Horizontal scanning frequency 31 to 69 kHz; vertical scanning frequency 59 to 86 Hz (more than 1,024 signal lines could result in incorrect display of the image).
 - A PC adapter is not necessary for the DOS/V-compliant D-sub 15-pin connector.

Note

- Some PC models cannot be connected to this TV.
- When using PC, set the colour display quality of PC to the highest position.
- For details of the applicable PC signals, see below.
- Max. display resolution

Aspect	4:3	1,440 × 1,080 pixels
	16:9	1,920 × 1,080 pixels

- D-sub 15-pin connector signal



Pin No.	Signal Name	Pin No.	Signal Name	Pin No.	Signal Name
①	R	⑥	GND (Ground)	⑪	NC (not connected)
②	G	⑦	GND (Ground)	⑫	NC (not connected)
③	B	⑧	GND (Ground)	⑬	HD
④	NC (not connected)	⑨	NC (not connected)	⑭	VD
⑤	GND (Ground)	⑩	GND (Ground)	⑮	NC (not connected)

Input signal that can be displayed

COMPONENT (Y, P_B/C_B, P_R/C_R), HDMI

* Mark: Applicable input signal

Signal name	COMPONENT	HDMI
480i (60 Hz)	*	*
480p (60 Hz)	*	*
576i (50 Hz)	*	*
576p (50 Hz)	*	*
720p (50 Hz)	*	*
720p (60 Hz)	*	*
1,080i (50 Hz)	*	*
1,080i (60 Hz)	*	*
1,080p (50 Hz)		*
1,080p (60 Hz)		*

PC (D-sub 15P)

Signal name	Horizontal frequency (kHz)	Vertical frequency (Hz)
640 × 400 @70 Hz	31.47	70.07
640 × 480 @60 Hz	31.47	59.94
640 × 480 @75 Hz	37.50	75.00
800 × 600 @60 Hz	37.88	60.32
800 × 600 @75 Hz	46.88	75.00
800 × 600 @85 Hz	53.67	85.06
852 × 480 @60 Hz	31.44	59.89
1,024 × 768 @60 Hz	48.36	60.00
1,024 × 768 @70 Hz	56.48	70.07
1,024 × 768 @75 Hz	60.02	75.03
1,024 × 768 @85 Hz	68.68	85.00
1,280 × 1,024 @60 Hz	63.98	60.02
1,366 × 768 @60 Hz	48.39	60.04
Macintosh13" (640 × 480)	35.00	66.67
Macintosh16" (832 × 624)	49.73	74.55
Macintosh21" (1,152 × 870)	68.68	75.06

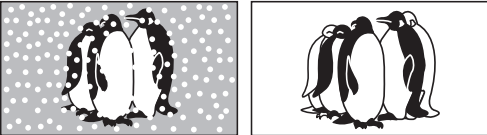
Note

- Signals other than above may not be displayed properly.
- The above signals are reformatted for optimal viewing on your display.
- Applicable input signal for PC is basically compatible to VESA standard timing.
- PC signal is magnified or compressed for display, so that it may not be possible to show fine detail with sufficient clarity.

FAQs

Before requesting service or assistance, please follow these simple guides to resolve the problem.
If problem still persists, please contact your local Panasonic dealer for assistance.

White spots or shadow images (noise)



- Check the position, direction, and connection of the aerial.

Neither image nor sound is produced

- Is the TV in "AV mode"?
- Is the mains lead plugged into the socket outlet?
- Is the TV turned On?
- Check Picture Menu (p. 20) and volume.

An error message appears

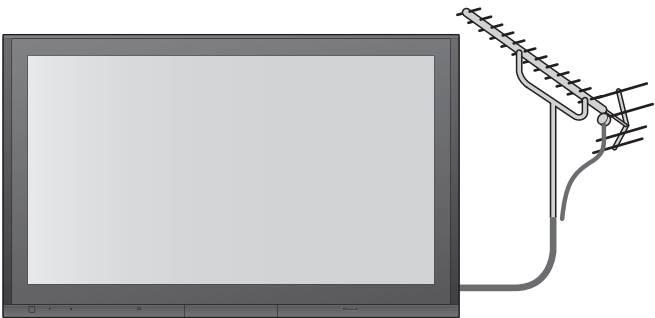
- Follow the message's instructions.
- If the problem persists, contact the authorized Service Centre.

Permanently lit spots on screen

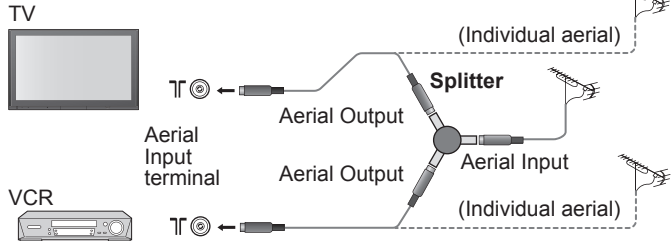
- Due to production process involved in this technology this may result in some pixels which are permanently lit or unlit. This is not a malfunction.

Contrast is reduced

- Contrast is lowered when the following conditions without any user operation for a few minutes:
 - no signal in DVB or AV mode
 - selected invalid channel
 - selected radio channel
 - displayed menu
 - Thumbnail, list or still picture in SD Card mode



	Problem	Actions
Screen	Chaotic image, noisy	<ul style="list-style-type: none">● Set "P-NR" in the Picture Menu (to remove noise). (p. 20)● Check nearby electrical products (car, motorcycle, fluorescent lamp).
	No image can be displayed	<ul style="list-style-type: none">● Is "Colour" or "Contrast" in the Picture Menu set to the minimum? (p. 20)
	Blurry or distorted image (no sound or low volume)	<ul style="list-style-type: none">● Reset channels. (p. 24)
	Unusual image is displayed	<ul style="list-style-type: none">● Turn off the TV with Mains power On / Off switch, then turn it on again.
Sound	No sound is produced	<ul style="list-style-type: none">● Is "Sound mute" active? (p. 7)● Is the volume set to the minimum?
	Sound level is low or sound is distorted	<ul style="list-style-type: none">● Sound signal reception may be deteriorated.
	Whirling sound is heard	<ul style="list-style-type: none">● The sound is from built-in cooling fan (not a sign of faulty operation).
HDMI	Sound is unusual	<ul style="list-style-type: none">● Set the sound setting of the connected equipment to "2ch L.PCM".● Check the "HDMI1 / 3 Input" setting in the Sound Menu. (p. 20)● If digital sound connection has a problem, select analogue sound connection. (p. 29)
	Pictures from external equipment are unusual when the equipment is connected via HDMI	<ul style="list-style-type: none">● Is the HDMI cable connected properly? (p. 34)● Turn Off the TV and equipment, then turn them On again.● Check an input signal from the equipment. (p. 39)● Use an equipment compliant with EIA/CEA-861/861B.

	Problem	Actions
DVB	<ul style="list-style-type: none">● Digital TV reception technology requires high quality, robust DTV signals which in some domestic aerial installations, may be relatively poor despite good analogue reception.	
	Aerial connection when using DTV and VCR / DVD Recorder	<ul style="list-style-type: none">● To maintain optimum signal quality from TV aerial, use a TV aerial splitter (as illustrated) when connecting two or more equipments to the same aerial. 
	After DVB Auto Tuning only some or no DVB channels are found	<ul style="list-style-type: none">● Check to ensure your area is covered by DVB transmissions. (www.dba.org.au/)● Check that the aerial and antenna cable are designed for DVB. For your safety, the aerial and cable should be inspected / installed by a licenced installer that should comply with Australian Standard AS1417.1. Note: If you live within 5-10 Km of DVB transmission towers, a combined VHF / UHF aerial should be adequate. Outside this area, separate VHF and UHF aerials provide superior reception performance.● If you live in a unit or apartment, check to ensure the Master Antenna TV (MATV) system is designed for analogue and DVB-T reception. Please consult your body corporate. (www.dba.org.au/)
	Picture regularly breaks up on some channels, or "No Signal" message	<ul style="list-style-type: none">● Check "Signal Display". (p. 25)● If "Signal Quality" or "Signal Strength" are displayed in red or constantly changing, check aerial.● If problem persists consult your local TV aerial installer.● Check that the aerial and antenna cable are designed for DVB. For your safety, the aerial and cable should be inspected / installed by a licenced installer that should comply with Australian Standard AS1417.1.● Interference (known as impulse noise) from household appliances such as light switches, fridges etc may cause picture break up and / or audio distortion. Use high quality quad shielded coaxial cable fly lead between TV and antenna wall socket to minimise impulse noise pickup. If problem persists consult your local TV aerial installer.● When "No Signal" message is displayed check TV aerial connection.● The received signal may be too weak to allow the TV to reliably lock to the desired "No Signal" channel to generate a stable picture. Repeat the tuning procedure (p. 24). If problem persists consult your local TV aerial installer.
Other	Picture very infrequently breaks up on some or all channels	<ul style="list-style-type: none">● Electrical atmospheric interference caused by local or distant lighting storms or heavy rain with wind in "leafy" locations may cause pictures to break up and audio to mute or distort momentarily.● Impulse noise interference from an infrequently used electrical appliance, or a passing vehicle or lawn mower with a "noisy" ignition system.
	TV takes so long to turn on	<ul style="list-style-type: none">● Like your computer, the TV has to run a number of diagnostic and software checks before it can display any broadcast channels.
	The channel cannot be changed	<ul style="list-style-type: none">● Is the TV in Teletext mode? (p. 16)
	The channel cannot be selected	<ul style="list-style-type: none">● Is the channel locked? (p. 25)
	TV goes into "Standby mode"	<ul style="list-style-type: none">● Off Timer function is activated.● The TV enters "Standby mode" about 30 min. after broadcasting ends.
	The remote control does not work	<ul style="list-style-type: none">● Are the batteries installed correctly? (p. 6)● Has the TV been switched On?

Frequently Asked Questions
FAQs, etc.

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Licence

Trademark Credits

- DVB is a trademark of the DVB Digital Video Broadcasting Project (1991 to 1996).
- VGA is a trademark of International Business Machines Corporation.
- Macintosh is a registered trademark of Apple Computer, USA.
- S-VGA is a registered trademark of the Video Electronics Standard Association.
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Specifications

Power Source			AC 220-240 V, 50 / 60 Hz			
Power Consumption panel	Average use		779 W			
	Standby condition		0.4 W			
	Aspect Ratio		16:9			
Display	Visible screen size		165 cm (diagonal) 1,434 mm (W) × 807 mm (H)			
	Number of pixels		2,073,600 (1,920 (W) × 1,080 (H)) [5,760 × 1,080 dots]			
	Speaker		Woofer (Φ 100 mm) × 2 pcs, Tweeter (23 mm × 100 mm) × 2 pcs			
Sound	Audio Output		31 W (15.5 W + 15.5 W), 10 % THD			
	Headphones		M3 (3.5 mm) stereo mini Jack × 1			
	PC signals		VGA, SVGA, XGA SXGA (compressed) Horizontal scanning frequency 31 - 69 kHz Vertical scanning frequency 59 - 86 Hz			
Receiving Systems / Band name			PAL B/G Reception of Off air broadcasts			
			DVB-T 7 MHz VHF / UHF (Australia) free-to-air TV broadcast reception			
			PAL 60 Hz Playback of NTSC tape from some PAL Video recorders (VCR)			
			M.NTSC Playback from M. NTSC Video recorders (VCR)			
NTSC Playback from NTSC Video recorders (VCR)						
Aerial - Rear			Standard Belling & Lee connector			
Operating Conditions			Temperature : 0 °C - 35 °C Humidity : 20 % - 80 % RH (non-condensing)			
Connection Terminals	AV1 Input	AUDIO L - R	RCA PIN Type × 2		0.5 V[rms]	
		VIDEO	RCA PIN Type × 1		1.0 V[p-p] (75 Ω)	
		S VIDEO	Mini DIN 4-pin		Y:1.0 V[p-p] (75 Ω) C:0.286 V[p-p] (75 Ω)	
	AV2 Input	AUDIO L - R	RCA PIN Type × 2		0.5 V[rms]	
		VIDEO	RCA PIN Type × 1		1.0 V[p-p] (75 Ω)	
		COMPONENT	Y P _B /C _B , P _R /C _R		1.0 V[p-p] (including synchronization) ±0.35 V[p-p]	
	AV3 Input	AUDIO L - R	RCA PIN Type × 2		0.5 V[rms]	
		VIDEO	RCA PIN Type × 1		1.0 V[p-p] (75 Ω)	
		COMPONENT	Y P _B /C _B , P _R /C _R		1.0 V[p-p] (including synchronization) ±0.35 V[p-p]	
	AV4 Input	AUDIO L - R	RCA PIN Type × 2		0.5 V[rms]	
		VIDEO	RCA PIN Type × 1		1.0 V[p-p] (75 Ω)	
		S VIDEO	Mini DIN 4-pin		Y:1.0 V[p-p] (75 Ω) C:0.286 V[p-p] (75 Ω)	
	Monitor Output	AUDIO L - R	RCA PIN Type × 2		0.5 V[rms] (high impedance)	
		VIDEO	RCA PIN Type × 1		1.0 V[p-p] (75 Ω)	
	Others	HDMI1 / 2 / 3 Input		TYPE A Connectors		● This TV supports “HDAVI Control 2” function.
		PC Input		HIGH-DENSITY D-SUB 15PIN		R, G, B/0.7 V[p-p] (75 Ω) HD, VD/TTL Level 2.0 - 5.0 V[p-p] (high impedance)
		Audio Input		RCA PIN Type × 2		0.5 V[rms]
		DIGITAL AUDIO OUT		PCM / Dolby Digital, Fiber optic		
		Card slot		SD CARD slot × 1		
Dimensions (W × H × D)			1,609 mm × 998 mm × 142 mm			
Mass			82.0 kg Net			

Note

- Design and Specifications are subject to change without notice. Weight and Dimensions shown are approximate.

This product is licensed under the AVC patent portfolio license for the personal and non-commercial use of a consumer to (i) encode video in compliance with the AVC Standard (“AVC Video”) and/or (ii) decode AVC Video that was encoded by a consumer engaged in a personal and non-commercial activity and/or was obtained from a video provider licensed to provide AVC Video. No license is granted or shall be implied for any other use. Additional information may be obtained from MPEG LA, LLC. See <http://www.mpegla.com>.